CHINA'S COAL INDUSTRY AT A CROSSROADS

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ABSTRACT

China's coal industry stands on the cusp of further industrial restructuring. In order to make its industry more financially sustainable and to challenge the giant global corporations of the advanced economies, small-scale coal mining, particularly township-and-village owned coal mines (TVCMs) have been forced to close. Many have been replaced with more modern and large-scale operations. TVCMs have made significant contributions to the growth of China's economy in terms of coal provision since the economic reforms of the late 1970s. Moreover, they yielded numerous socio-economic benefits including absorbing surplus labour and combating rural poverty, all of which are priorities of the Chinese government. Despite recognizing the socio-economic importance of TVCMs, the Chinese government has started to implement the widespread closure of TVCMs since 1998. The Chinese government legitimizes the closure policy in terms of the problems distinctive to TVCMs including low safety standards and environmental damage. Many observers, however, construe the issue in the context of competition with the state-owned (SOE) coal mines. It is true that the poor safety measures of TVCMs contributed to the high death toll of China's coal industry and that many TVCMs do not care about environmental protection. Moreover, intensifying competition with TVCMs led to lower coal prices and in turn to further financial problems for SOE coal mines. Yet these arguments are not enough to fully capture all aspects of the Chinese government's motivation. This paper alternatively argues that closing down TVCMs and replacing capacity with large-scale SOE coal mines is the result of deliberate calculation responding to internal and external pressures amid the increasing market orientation of the country. Both, internal pressure to maintain state power through the SOEs in the energy sector, and external pressure to accommodate the intensifying global competition in the energy market triggered the demise of TVCMs; secondly, these forces are pushing further industrial restructuring through the enforced consolidation of mining enterprises into large state conglomerates.
# TABLE OF CONTENTS

**Abstract** .................................................................................................................. ii  
**Table of Contents** .................................................................................................... iii  
**List of Tables** ........................................................................................................... iv  
**List of Figures** ........................................................................................................... v  
**Acknowledgements** ................................................................................................. vi  
1 **Introduction** ........................................................................................................... 1  
2 **Review of China’s Energy Needs: Production and Consumption of Coal** ............... 4  
2.1 **China’s energy consumption** ............................................................................. 4  
2.2 **Energy structure heavily dependent on coal** .................................................... 7  
2.3 **The structure of coal production** ..................................................................... 10  
3 **The Development of TVCMs** ............................................................................... 14  
3.1 **Decentralization and rural non-agricultural development** ................................. 14  
3.2 **“Two-legs” policy** ............................................................................................ 16  
3.3 **The cost and benefits of TVCMs** .................................................................... 17  
3.4 **Health and safety** ............................................................................................. 18  
3.5 **Environment** ................................................................................................... 19  
3.6 **Socio-economic benefits of TVCMs** ................................................................. 20  
4 **Competition within the industry** ......................................................................... 24  
4.1 **Performance of SOE coal mines and constraints** .............................................. 24  
4.2 **Performance of TVCMs** ................................................................................... 28  
4.3 **The closure policy and what lies ahead** ............................................................ 29  
5 **Internal Pressure: Continuing political power through major SOEs in the energy sector** ............................................................................................... 37  
5.1 **Political imperative to stay in power: The Chinese Communist Party** ............... 37  
5.2 **State ownership and political legitimacy** ....................................................... 39  
6 **External Pressure: Consolidation in the coal sector to compete with global giants** 41  
6.1 **Globalization and joining the WTO** ............................................................... 41  
6.2 **Foreign involvement in the coal industry** ....................................................... 45  
6.3 **Building big business in the coal industry** ..................................................... 47  
6.4 **The Shenhua Group: Case study** .................................................................... 50  
7 **Conclusion** ............................................................................................................. 56  
**Bibliography** ............................................................................................................. 60
LIST OF TABLES

Table 1. Output share by mine type, 1980-2004 ................................................................. 13
Table 2. Fatality rates in China's coal mines, 1970-2003 ..................................................... 20
Table 3. Coal exports and imports, 1990-2003 .................................................................. 45
LIST OF FIGURES

Figure 1. China’s energy consumption, 1978-2004 ................................................. 6
Figure 2. China’s primary energy consumption structure, 1978-2004 ......................... 10
Figure 3. Coal output in China, 1980-2004 .................................................................. 12
Figure 4. Changes in production ratios between mine types, 1980-2004 .................. 13
Figure 5. Loss of state key coal mines in 1984-1998 ................................................... 37
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1. Introduction

Coal has long been a primary energy source and a driving force of the Chinese economy. China is the largest coal producer and consumer in the world, and for the foreseeable future, the nation's huge energy demand has to be met mainly by coal as there is no other viable alternative in terms of cost and abundance. China's coal industry currently stands at the crossroads of further industrial restructuring undertaken in order to provide a stable and effective energy supply. Township- and village-owned coal mines (TVCMs), which had played a pivotal role in the provision of coal since the beginning of the 1980s, are being phased out of the coal industry in China with large-scale closures. To make China's coal industry more financially sustainable and to challenge the giant global corporations of the advanced economies, TVCMs have been forced to close and have been replaced with large-scale operations since 1998 when the closure policy first began. TVCMs were encouraged to develop in order to overcome the severe shortage of coal and create competition with state-owned coal enterprises instead of privatizing large and medium state-owned coal mines.

This policy of nurturing TVCMs on the one hand and improving the efficiency and productivity of state-owned coal enterprises on the other hand, contributed to China's ability to overcome past severe shortages of coal and supply the nation with energy. However, the demise of TVCMs was determined in 1998 when the closure policy started. The magnitude of the benefits gained through TVCMs declined and the cost of running and maintaining them came to the attention of the Chinese government. Indeed, TVCMs have significant problems including poor safety measures, illegal operations and environmental damage. Such are the legitimating reasons of the government for the
closure policy. Moreover, the importance of TVCMs in terms of the provision of coal has relatively diminished due to the oversupply of coal in the late 1990s and diversification of other energy sources in recent years. Yet, at the same time these TVCMs still assume socio-economic importance particularly to coal producing areas. This is particularly visible in the way that they contribute to absorption of rural surplus labour, combating of rural poverty and the forging of rural economic growth, of all which are priorities of the Chinese government. In other words, TVCMs are still of prime importance to the localities in which the TVCMs are located. Thus, given the importance of TVCMs to localities, the closure policy which forces TVCMs to stop their operation may have a tremendous negative impact on localities at least for the short term. One question which emerges is why the Chinese government included the closure policy in its blueprint of industrial restructuring at the expense of the great benefits of TVCMs. Even if the problems of TVCMs are too huge to be ignored, the benefits of TVCMs have a significant meaning given China's huge rural population and its long-standing poverty. What are the forces which pushed the restructuring of the coal industry to the extent that the government closed down many of the TVCMs? Reflecting upon these sets of questions, this paper elucidates internal and external pressure which the Chinese coal industry is facing in the current era. Although many observers associate the closure policy with the context of competition between TVCMs and SOE coal mines and conclude that the policy was implemented only when the interests of large-scale SOE coal mines were threatened, this is too simple to capture the fundamental causes. On the surface, it may seem that the closure policy was carried out without much contemplation since the policy was drawn up and implemented in just a few months. This paper
alternatively argues that closing down TVCMs and replacing capacity with large-scale SOE coal mines is the result of deliberate calculation of the Chinese government responding to internal and external pressure. Both internal pressure to maintain the state power through the state-owned coal mines and external pressure to accommodate the intensifying global competition in the energy market triggered the demise of TVCMs; secondly, these forces are pushing further industrial restructuring through the enforced consolidation of mining enterprises to larger state conglomerates.

The aims of this paper are threefold. First of all, it clarifies that the legacy of central planning still remains visible particularly in the energy sector and that various factors associated with the legacy have hindered market-oriented coal production. As a result, the coal industry has long been one of the largest loss-makers among the state-owned enterprises in China. The TVCMs were encouraged to develop to compete with the state-owned coal mines so that the coal industry as a whole could improve its productivity and efficiency. Instead, however, the TVCMs triggered what the Chinese government regarded as excessive competition which in turn led to further financial problem for the major state-owned coal mines. Pressure to protect these coal mines was partly responsible for pushing the government to close down the operation of TVCMs. Thus, the closure campaign signifies that state-owned coal mines are still important for the Chinese government to the extent that it is unable or unwilling to relinquish control of them. Second, it intends to shed light on the dilemma that China is dealing with over the closure policy. Closing down TVCMs on the one hand, could improve the financial performance of the state-owned coal mines in the short run by controlling excessive market competition and resolve the many problems involving TVCMs. However, on the
other hand, it creates other problems such as increasing rural surplus labour and decreasing local revenues, all of which might lead to social instability in rural areas. The government decision to close the TVCMs thus assumes great significance in that the important socio-economic roles of TVCMs have taken a back seat to the restructuring of the industry. Third, this paper presents how China’s coal industry is transforming itself to accommodate globalization and its consequences. Before China opened its doors in the late 1970s, it had pursued a policy of self-reliance following the Soviet model, in which the coal industry did not need to care about competition with other countries to survive. The industry was pressured to develop by whatever means available to match the speed of development of steel production in China.\(^1\) Now along with the trend of globalization and the open door policy, China’s coal industry has been exposed to the external environment more than ever before and this has led the coal industry to experience intensified global competition. In order to survive this competition, China’s coal industry has been pressured to make every effort to improve coal production and acquire advanced equipment and technology primarily achieved through closing TVCMs.


China’s Energy Consumption

Since China implemented its economic reform and open door policy in the late 1970s, it has undergone phenomenal economic growth in achieving an average annual growth rate of over 9 percent. With the acceleration of urbanization and industrialization, China’s demands for energy supplies have been increasing. According to one study, China’s annual consumption of commercial energy has risen by about 250 percent since

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1980. Although per capita energy consumption is still less than half of the average for what the World Bank categorizes as ‘lower middle-income economies’, China as a whole is now the second largest energy consumer in the world after the U.S. Its primary energy consumption accounts for 13.6 percent of the world total and it is widely expected that China’s energy consumption will grow as its economic development continues. Energy consumption, of course, depends on a number of factors including the rate of economic growth, the improvement of energy efficiency and the rate of expanding population. According to the statistics, there are still 27 million rural inhabitants who have no access to electricity and what will be the case if those people gain access? Moreover, what if people’s purchasing power drastically increases and many people come to be able to afford cars? These factors will contribute to increase demands for energy and it is apparent that China’s per capita energy consumption level has huge potential as long as China maintains the current level of economic growth. Projections conducted by various energy institutions suggest that China’s primary energy consumption will increase by at least 200 percent during the thirty years from 2001 to 2030. This provides the Chinese government with a great challenge since energy is not an isolated issue but is closely linked to social, economic and political factors.

The Chinese government recognizes the need for a stable energy supply for sustained economic growth. Energy shortages impede not only the industrial and agricultural development of China but they may also cause social disorder. In order not to allow this to happen, the Chinese government has been keen to acquire energy supplies

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both inside the country and overseas to fuel its economy. Indeed, China’s oil and natural gas imports have increased sharply in the last five years and it is expected that this trend will continue. The so-called Chinese ‘oil diplomacy’ has been drawing much world attention since China became an oil importer in 1993. Now many of the Chinese state-owned oil companies are exploring overseas productions opportunities in diverse locations including Africa, the Middle East, Russia, and Central Asia. Although natural gas is currently a minor fuel in overall energy use in China with 7 per cent of the total primary energy consumption, China is expanding infrastructure to facilitate natural gas consumption as well as natural gas imports. These trends suggest that China’s domestic energy resources are insufficient to sustain its fast economic growth and that it is likely that China will become increasingly dependent on energy imports in the future.

Figure 1. China’s Energy Consumption, 1978-2004

![Graph showing China's Energy Consumption, 1978-2004](image)


Mtoe=million tons of coal equivalent

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Energy Structure Heavily Dependent on Coal

Yet the increase in energy imports does not necessarily mean that the importance of coal to the country will decrease. China’s principal source of energy is coal and now it accounts for approximately 66 per cent of the country’s total energy consumption (Figure 2). Coal has long played a significant role not only in fuelling the economy but also in pulling its economic development since 1949 when China was founded.⁷ The importance of coal to China can be discussed with regard to the following aspects. First of all, the country has a rich endowment of coal resources and its reserves of coal are the world’s third largest. China has been the largest producer of coal since 1991 when it overtook the U.S and it is the largest coal consumer accounting for one third of the world’s total annual consumption.⁸ This domestic affluence made coal an irreplaceable energy source to China. Secondly, the importance of coal was especially emphasized when China pursued a self-reliance policy under the leadership of Chairman Mao.⁹ Under its self-reliance policy, China needed to maximize the exploitation of domestic energy resources since it could not depend on other countries for its energy supply except perhaps, from a few of its allies. Thus, with the constraint that China had to achieve its industrialization on its own, the country’s coal abundance played a significant role in meeting its goal. Moreover, both as an input and fuel for steel production, which was considered as the means of fulfilling its industrialization, coal production was highly encouraged by the government. According to the statistics, coal accounted for 95 percent of primary energy consumption from 1952 to 1960 and the role of coal as a principal source of energy in the

⁷ Rui, 2005, p.27.
country has not changed over the past years. Third, coal is important to China because
the dominant role of coal seems difficult to replace with other energy sources. More than
half of China’s coal is currently used to generate over three quarters of the national
electricity supply. Changing one source of energy to one or more other sources involves
huge investments in new equipment and technology. Moreover, the displacement of a
large work force occurs along with the switch of primary energy resource and this raises
concerns in the government since it is thought to lead to a social instability.\(^\text{10}\) However,
growing evidence suggests that the Chinese government has begun to phase out the use of
coal gradually and contemplate other sources of energy. For example, oil has become
more and more important in China’s energy consumption and substantial domestic
exploration has been carried out. Although the share of oil in China’s energy
consumption in the late 1980s was approximately 19 percent, it gradually rose to the
current level of approximately 24 percent.\(^\text{11}\) The statistics show that the level of oil
imports increased ten times in just eight years from about 100,000 barrels daily in 1990 to
more than one million in 1997.\(^\text{12}\) Nuclear power is considered as one source of promising
new energies especially for coastal areas although it is estimated that it will produce only
1 percent of China’s energy consumption. Natural gas is also seen to substitute for coal
in electrical power generation and residential use in the future since the Chinese
government placed great emphasis on developing a domestic gas market.\(^\text{13}\) Hydro power,
one energy source currently being developed in China is estimated to supply no more
than 3 percent of China’s energy need. Thus, recent trends suggest that there has been an

\(^{11}\) He and Qin, 2006, p. 97.
\(^{12}\) Philip Andrews-Speed and Sergei Vinogradov, “China’s Involvement in Central Asian Petroleum,” *Asian Survey* 40.2
\(^{13}\) Andrews-Speed, 2004, p. 16.
increase in proportion of other energy resources at the expense of coal and these trends are likely to continue. Particularly since that the exploration and use of coal is one of the causes of atmospheric and water pollution in China. Yet a significant drop in the usage of coal is improbable since there is no alternative in China which can supply enough energy to maintain China’s economic development at least for the foreseeable future. The Chinese government is careful about energy imports since it could cause a strategic vulnerability of which foreign powers take advantage. This notion has encouraged its maximization of the exploitation of domestic energy resources ever since the foundation of the country. Since it appears that China will not readily change this position, it is likely that coal which plays a pivotal role in domestic energy resources continues to be of prime importance to China. Moreover, it is also noteworthy that the importance of coal as a primary domestic energy source to Chinese government stems from a “threat of supply cut-off”. A perception of “an energy crisis” grew especially during the 1970s when political disruption in the Middle East occurred and natural resource depletion was perceived to be happening. This notion affected the energy policy agenda in many countries in that it promotes domestic energy supply and reduction of dependence upon imported energy because of supply disruptions fears. These factors are encouraging the government to restructure the industry including the closure policy so that it can continuously produce its most abundant energy resources to fuel and forge the economy. It may be “just” coal for other countries, but it is crucial for the security of China’s energy.

14 Andrews-Speed, 2004, p. 44.
15 Ibid.
The Structure of Coal Production

While many countries continue to reduce coal production mostly due to environmental concerns, China remains the world largest coal producer since 1989 and from 1979 to 1996, nationwide coal output increased steadily\(^\text{16}\) (Figure 3).

China's coal production is often classified into three entities in terms of size and ownership: key state-owned coal mines (KSOCM); state-owned local mines (SOLCM); and TVCMs.\(^\text{17}\) KSOCM are mines which were centrally administered by the State Administration of Coal Industry, and which have now been transferred to the provincial authorities. Their minimum annual output is 500,000 tons per year. SOLCM are local mines managed by provincial and county government. State owned coal mines (SOE)

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\(^{17}\) Creedy, et al, 2006, p. 15.
refer to both KSOCM and SOLCM. On the other hand, TVCMS refer to all those rural non-state coal mines subordinate to the township or village governments and owned and operated collectively. In other words, TVCMs are owned by all the residents in a township or village but controlled by local governments at the township and village level, and more precisely by local government officials. TVCMs also include privately owned mines and mines owned by a wide range of state companies and agencies, including the army, the prison service and large-scale mining companies. They are found in almost every one of the 32 provinces, regions and municipalities of China although their collective output, individual capacity and the size of their workforces vary widely. It was not until the 1980s that TVCMs were encouraged to develop in real earnest to overcome a severe shortage of coal. The KSOCM had played a pivotal role in producing coal since the foundation of China under the command economy so that the government was able to control the national economy and allocate resources to the most important industries such as steel and defense. Since the energy sector is regarded as one of the strategic industries that influence the Chinese economy and people's livelihood, the control of the energy sector by the government has long been justified in China as in the rest of the world. Even after the economic reforms, energy production and consumption in China have for a long time been tightly controlled by the government. In 1980, KSOCMs provided 56% of China's total coal production, the SOLCM provided another 26%, and the TVCM accounted for the remaining 18% of coal production. Although the domination of the KSOCM in coal production continued, at the same time the output share from the TVCM increased rapidly from the early 1980s to the mid 1990s as table 1

19 Rui, 2005, p. 41.
shows. Drastic change in terms of the sector’s ownership structure occurred in the mid 1990s when the output from the TVCM accounted for almost half of the national output. However, due to the large-scale of closure of TVCMs in the late 1990s, the level of output from TVCM decreased and the output share from KSOCM has become more concentrated; this trend seems to be continuing. Although the closure policy is still in effect to day, the policy has been more flexible since 2002 when coal shortages became a problem again in China.21 As Figure 3 shows, coal output from TVCMs is increasing again since 2001 but the government this time has emphasized quality rather than quantity of coal that the TVCMs produce.

Figure 3. Coal output in China 1980-2004

![Graph showing coal output in China 1980-2004](image)


Mt= Million tons

21 Rui, 2005, p. 58.
Table 1. Output Share by Mine Type, 1980-2004

<table>
<thead>
<tr>
<th>Year</th>
<th>Total (Mt)</th>
<th>KSOCM (%)</th>
<th>SOLCM (%)</th>
<th>TVCM (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>620</td>
<td>55.5</td>
<td>26.1</td>
<td>18.3</td>
</tr>
<tr>
<td>1985</td>
<td>872</td>
<td>46.6</td>
<td>21.0</td>
<td>32.5</td>
</tr>
<tr>
<td>1990</td>
<td>1,080</td>
<td>44.5</td>
<td>19.0</td>
<td>36.5</td>
</tr>
<tr>
<td>1995</td>
<td>1,292</td>
<td>37.3</td>
<td>16.5</td>
<td>46.2</td>
</tr>
<tr>
<td>2000</td>
<td>951</td>
<td>55.5</td>
<td>20.1</td>
<td>21.2</td>
</tr>
<tr>
<td>2001</td>
<td>1,105</td>
<td>56.0</td>
<td>20.0</td>
<td>24.0</td>
</tr>
<tr>
<td>2002</td>
<td>1,393</td>
<td>51.0</td>
<td>19.0</td>
<td>30.0</td>
</tr>
<tr>
<td>2003</td>
<td>1,736</td>
<td>47.8</td>
<td>16.9</td>
<td>35.3</td>
</tr>
<tr>
<td>2004</td>
<td>1,956</td>
<td>47.1</td>
<td>16.1</td>
<td>36.8</td>
</tr>
</tbody>
</table>


Figure 4. Changes in Production Ratios between Mine Types 1980-2004

3. The Development of TVCMs

Decentralization and Rural Non-Agricultural Development

As seen in the previous section, TVCMs played a significant role in the provision of coal to fuel the nation’s rapid growth in tandem with the KSOCM after the economic reforms. While a number of periods of rapid output growth of TVCMs can be identified, there are also periods that their output is relatively stagnant. This signifies that the growth of TVCMs hinged both upon the economic situation of the country and on the policies towards TVCMs.22 Both the state of the economy and the policy towards TVCMs in the early 1980s overtly encouraged all levels of government to develop TVCMs when China faced a severe shortage of energy. Although a crisis of energy supply triggered the expansion of TVCMs, there are two important aspects which are also worthy of attention in terms of the economic reforms. These are decentralization and “two-legs” policy. First, the robust expansion of TVCMs resulted from the decentralized nature of property rights, which prompted the rapid development of township and village ownership enterprises (TVEs) in China.23 TVEs are defined as rural non-state enterprises subordinate to the township or village governments and owned and operated collectively.24 Decentralization was implemented after the economic reforms to reduce the level of central control over decision making of localities and to provide incentives to regions.25 Based on this concept of decentralization, the economic reforms carried out rural development which allowed local governments to initiate policies to stimulate local economic growth and TVEs were pushed to prosper under each local government. At the

25 Wei, 2000, p. 25.
same time, it is noteworthy that the change of government policy towards rural non-agricultural development gave momentum to the development of TVEs. Before the reform, cultivating the land and producing grain was the top priority over all other activities of the Chinese peasants and non-agricultural activities took a back seat to agricultural development. In other words, non-agricultural activities were considered as a way to serve and support agriculture by providing it with material inputs including fertilizer and electric power. With the economic reforms, however, this view was replaced by a new rural development strategy which considered non-agricultural activities as a way of eradicating poverty and absorbing surplus rural labour by generating employment and expanding productive activities. The successful rural non-agricultural development was called the "sunan model", in which rural development occurred through the growth of industrial enterprises that are owned and operated by township and villages and financed initially from surpluses generated within the community. Local officials have strong incentives to develop TVEs since it was the best way for their communities to prosper and to generate the revenue needed by the township and village governments. As a result, local governments tended to protect the interests of localities. Moreover, many analysts point out that the development of TVEs is associated with a personal interest of township and village officials since their income and status are all connected to the economic performance of their communities, which make them act very much as entrepreneurs. The great contribution of TVEs to the Chinese economy is often considered one of the most remarkable features of its economic development.

27 Ibid.
29 Wei, 2000, p. 102.
growth in the last twenty years. In contrast to the demise of SOEs, many people expected TVEs to become a major engine of China’s future development. Thus, like other TVEs, the TVCMs have also been developed through the relaxed state control and the focus on the importance of non-agricultural development.

"Two-legs" Policy

Second, the remarkable development of TVCMs proceeded from the so-called "two-legs" policy in the 1980s. China was suffering from coal shortages due to the rapid increase in demand triggered by the economic reforms and yet its investment in the coal industry was not sufficient to meet growing demand. However, improving productivity and efficiency by privatizing SOE coal mines was not within the scope of option of the Chinese government. The former Soviet Union’s experience with abrupt government withdrawal from the economy suggests that China needs to move slowly from central planning to the market. Moreover, political opposition to privatizing SOE coal mines was easily predicted since the vested interests and privileges of these companies were deeply ingrained over the decades. Thus, instead of privatizing the state-owned coal enterprises, the so-called "two-legs" policy was implemented to resolve the problems of coal shortages and insufficient investment in the industry. Two legs refer to the capacity of SOE coal mines and that of TVCMs. The "two-legs" policy in the industry was initially to raise the level of national coal output through both the TVCMs and SOE coal mines. As a result, TVCMs not only contributed to the energy supply but also improved the productivity and efficiency of state-owned coal mines through competition. This "two-legs" policy in the coal industry reflects an implicit guiding principle underlying

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30 Rui, 2005, p. 52.
China's reform strategy that the reforms should be forged "without creating losers''. Thus, without a detrimental impact on the state-owned coal mines, the Chinese government encouraged the growth of TVCMs to overcome coal shortages and forge investment in the industry as a whole.

The Cost and Benefits of TVCMs

Against the background of decentralization and "two-legs" policy, the TVCMs experienced a rapid expansion. It is widely known that small-scale mines bring both major problems and enormous socio-economic benefits to a number of developing countries and China is not an exception. Although the size of some of China's TVCMs exceed people's definition of "small-scale mine", the problems and benefits of China's TVCMs are often identical to that of conventional small mines. Experts seem to agree that a wide range of effective regulatory frameworks for small-scale mining are necessary to minimize the negative impacts of these mines and optimize the benefits of them. The main problems of small-scale mining upon which experts across the world agree include environmental problems: the waste of natural resources, poor safety records, and low technical and economic performance of the mines. At the same time, the socio-economic benefits that small-scale mining yields in developing countries have been affirmed by many international communities including the United Nations Economic and Social Council's Committee on Natural Resource. These include: absorbing rural surplus labour, alleviating widespread poverty, and contributing to national and regional rural economies.

Reflecting its significant coal reserves and huge rural surplus labour, China's TVCMs are the largest in the world in terms of coal output and the number of employees. Thus the problems of China's TVCMs easily come to the surface compared to the places where only a small number of small-scale coal mines operate. There are a number of problems pointed out after the rapid development of TVCMs; amongst others were their high accident rates and environmental damage are worthy of attention.

*Health and Safety*

China's TVCMs have a low profile in terms of safety measures. Their poor safety record is continuously making headline news and they are the target of criticism from relevant international agencies. According to official data, the number of death from coal accidents in China is consistently over 5600 per year despite repeated campaigns to crackdown on dangerous mines and nearly 70 per cent of the accidents occur in TVCMs. The fatality rates of China's TVCMs is said to be seven or eight times higher than that in the large state mines (Table 4). Coal accidents include blasts, floods and collapses and most of them are caused by poor safety measures. Since there are many cases where these accidents are not reported to the authorities, analysts estimate that the number of accidents is actually a lot higher. Since TVCMs are an important source of income for local governments and the status and income of local governments' officials are linked to the economic performance of the community, they have incentives to report a fewer number of accidents so that they can keep TVCMs running for local revenue. It is widely reported that some local officials act as coal mine owners themselves and others

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accept bribes from mine owners to help them hide death tolls when accidents occur. While cost cutting is one factor critical to the success of TVCMs, it also led to poor safety measures by skimping on safety standards and training. For example, while SOE coal mines use pit props to prevent shaft collapse, TVCMs usually do not in order to reduce cost. Moreover, many of TVCMs do not have equipment to control dust. In addition, TVCMs employ relatively untrained workers who have recently transferred from agriculture and their safety consciousness is low. These factors contribute to their high accident rates. Although the figures for fatalities are at least enumerated, non-fatal injuries and a range of health problems experienced by TVCMs are not officially tracked. It is well known that thousands of miners particularly suffer from lung problems.

Environment

Another big problem involving TVCMs is environmental damage. With its heavy use of coal, China has been accused of being a major contributor to global warming and other pollution sources. This accusation is reasonable given that China is the second largest sulphur dioxide producer in the world, just behind the U.S. Among the coal sectors, the TVCMs are particularly notorious for their activities impact on the environment. Although it is difficult to quantify to what degree the TVCMs have caused environmental damage, available data show that they are the major contributors to sulphur dioxide, industrial dust and soot and waste water.

37 "China's coal mine deaths up 8.5 percent despite safety campaign," China Daily, 2 November 2005.
38 Rui, 2005, p. 61.
Table 2. Fatality Rates in China's Coal Mines, 1970-2003
(deaths per million tons)

<table>
<thead>
<tr>
<th>Year/s</th>
<th>KSO CM</th>
<th>SOL CM</th>
<th>TVCM</th>
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<td>1970</td>
<td>7.11</td>
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<td>1980</td>
<td>4.53</td>
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<td>1990</td>
<td>1.43</td>
<td>9.06</td>
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<td>1992-1995</td>
<td>1.83</td>
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<td>1996-2000</td>
<td>1.67</td>
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<td>2001</td>
<td>1.59</td>
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<tr>
<td>2003</td>
<td>1.08</td>
<td>3.13</td>
<td>9.62</td>
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Sources: Rui 2005: 65; Wright 2004: 631

Socio-economic Benefits of TVCMs

In tandem with these problems, TVCMs also have yielded socio-economic benefits to China’s rural areas. Enormous socio-economic benefits are the reason that TVCMs were encouraged to develop despite their numerous problems. Andrews-Speed categorizes the benefits which accrued from China’s TVCMs into two aspects: one relating to the supply of energy and the other relating to socio-economic aspect. One of the great benefits from the TVCMs was their tremendous contribution to the total energy supply of the country after the economic reforms in the late 1970s. China was suffering from chronic energy shortages for the decades from the 1950s to the mid-1990s. Particularly between 1982 and 1988, China experienced phenomenal economic growth recording an annual average growth of 11.8 per cent, which elevated energy demand to ever-higher levels. TVCMs’ production reached half of the national total coal output by the mid-1990s and this ended China’s coal shortage history. While TVCMs fulfilled the

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growing energy demands at a national level, they also played an important role in the provision of coal to local areas. The coal produced by TVCMs was used for power stations and factories owned by TVEs, which greatly contributed to local economic growth in the 1980s and 1990s. Since more than half of the output of TVCMs was sold within the same county as it was produced, the coal provided by TVCMs particularly assumed significant importance to remote inland village and townships.\(^{40}\) This is partly due to the lack of rail transport capacity but at the same time it is also true that this expansion of local sources of coal reduced the incentives to develop the coal transportation network.\(^{41}\)

The socio-economic benefits arising from TVCMs are also important in that they absorbed a significant amount of rural surplus labour, which in turn helped to eradicate rural poverty and increase local revenues. Moreover, a wide range of service sector activities emerged around the production and transport of coal. Rui finds that the number of employees of TVCMs increased from 28.27 million in 1978 to 135.08 million in 1996 and the share of rural income increased from 7.5% to 34.2% in the respective years.\(^{42}\) More than 80 per cent of China’s coal is situated in the western and north-western areas and these areas are historically poor and still lag behind the national level of development. The bulk of research suggests that per capita incomes of the regions which have large coal output are almost all below the national average, especially for those located in the western regions. In addition, these areas have huge surplus labour forces. For the people who live in these areas, coal is the major source of income and TVCMs are important means of local economic development. Coal mining is a labour-intensive activity which

\(^{40}\) Ibid.
\(^{41}\) Ibid.
\(^{42}\) Rui, 2005, p. 53.
provides employment opportunities to a significant number of people, most of whom live in remote areas where there are few other job opportunities.\footnote{Recent Developments in Small-scale Mining: A Report of the Secretary-General of the United Nations,\textit{ Natural Resources Forum} 20.3 (1996), p. 215.} Moreover, since TVCMs usually do not require many skills nor formal education, they create wide employment opportunities mainly to the least educated and the poor. The Chinese government admits the importance of TVCMs in absorbing rural surplus labour and creating rural income. The investigation on the development of TVCMs conducted by the former Ministry of Coal Industry (MCI) concluded in this respect:

The development of TVCMs has greatly promoted economic development and poverty reduction in the mining areas... TVCMs have become the main industry of local areas driving the development of transportation, construction, chemical, power, metal and business service sectors. In poor areas with large coal reserves, most towns and villages have escaped poverty and enriched themselves by depending on the contributions of TVCMs. They have also made a great contribution to local infrastructure, education and social welfare.

(Quoted from Rui 2005: 61)

Many of the case studies suggest that TVCMs played a significant role in national and regional rural development. For example, in Shenmu county in Shaanxi province, the revenue of the county in 1999 was 180 million yuan, of which 50 per cent came from over 200 TVCMs.\footnote{Rui, 2005, p. 61.} Moreover, 20,000 peasants were recruited into TVCMs in the same year in Shenmu county, earning at least twice as much as they earned from the land.\footnote{Ibid.}
Relatively higher wages than construction and agriculture are also making TVCMs financially appealing.

There is no doubt that poverty in the country has declined drastically after China implemented economic reforms in the late 1970s. At the same time, there still are huge numbers of people in China who are poor in terms of international poverty lines and most of them live in rural areas. It is widely recognized that the gap between poor in rural areas and rich in urban areas has been widening in China. Given that the TVCMs play an important role in China’s rural areas in absorbing surplus labour and in turn eradicating poverty, simply closing down the TVCMs will increase rural underemployment, which may become a serious issue in China’s economic and social development.

When China was struggling from severe coal shortages, the problems involving TVCMs took a back seat to numerous benefits of these mines. The benefits of the TVCMs were the center of the attention of the Chinese government and in fact, the massive entry of TVCMs ended China’s long-standing problem of coal shortages. However, new problems arose along with the development of TVCMs: including oversupply and the intensified competition associated with it. These problems are serious to the extent that they had a detrimental impact on state-owned coal mines by diminishing their competitive position that they used to have in the industry. The next chapter shows how the development of TVCMs affected the state-owned mines and why their competitive position was ended by the TVCMs. Looking into the interaction between TVCMs and state-owned coal mines is important since these two groups are the key coal producers which dominate the coal industry. The closure policy is closely linked to the performance of these two types of coal mines.

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4. Competition within the industry

Performance of the SOE Coal Mines and Constraints

Although China experienced the state-owned enterprise (SOE) reform after the economic reforms and in fact, had undergone a drastic change in ownership structure, SOE coal mines still play an important role in the coal industry. During the 1980s, they mainly operated within the sphere of the planned economy. While SOE contribution to national industrial output dropped from 75 per cent in 1978 to less than 35 per cent in 1995, coal output from SOE coal mines including KSOCM and SOLCM constantly exceeds more than 60 per cent after the economic reforms. SOE coal mines, however have long been one of the problematic sectors in China in terms of their financial situation and level of worker redundancy. Especially in the middle of the 1980s, it was estimated that SOE coal mines accounted for almost half of total SOE losses. Of nearly one hundred KSOCMs, only 13 were reported to be making profits in 1998. This, however, is not only the case for China. Coal industries are generally speaking, loss making sectors. Most of the governments subsidize their coal industries through various methods such as grant, price supports and limitations on coal imports. China’s state-owned coal sector was receiving nearly six billion yuan in state subsidies by 1993 and employed over 3.4 million workers and they are still receiving subsidies although the amount and its channel have changed. Since coal is the backbone of the energy supply for China’s economic growth and it greatly affects national security and people’s lives, the soft budget of SOE coal mines have been justified in spite of the inefficiencies of the production.

Although numerous efforts have been made in China to reverse the deficit situation of SOE coal mines and ultimately to make the industry profitable, little progress has been made since the legacy of the central planning, which impedes market-oriented coal production, still remains. The bulk of research has been conducted with regard to the financial and operational difficulties that SOE coal mines are facing. Wright classifies these difficulties of SOE coal mines into several factors including resource-related factors and enterprise-related factors. Amongst others, low planned prices and heavy social welfare burdens may be the largest impediments to the restructuring of SOE coal mines in China.

For decades the government had implemented a low price system for coal in order to provide cheap fuel for the rapid economic development. This is one of the typical features of the command economy system and especially in the early years the government only allowed small increases in the price of coal out of fear of uncontrollable inflation.\(^{50}\) Thus at times, the government price of coal even dropped below costs. For example, between 1983 and 1986 the price for Datong coal increased by only 6 per cent whereas cost for producing coal increased by 67 per cent, which led to a disastrous decrease in the financial position of the SOE coal mine.\(^{51}\) Especially during the 1980s to early 1990s the prices of other materials for mining, such as steel and timber were allowed to rise much more quickly than coal prices due to the price reform across the industrial sector and this caused the widening differential between coal production cost and prices.

\(^{50}\) Thomson, 2003, p. 234.

The Sichuan case particularly shows this phenomenon. The average production cost was 27.26 yuan per ton while the price sold was 20.84 yuan per ton in 1985. In 1990 the respective figures became 66.29 and 33.34 yuan, and in 1993 they were 125 and 80.61. However, the situation had actually begun to improve due to price deregulation which allowed a larger share of total coal production to be sold at market prices. Market prices are determined by negotiations between coal producers and users. In 1996, more than two-thirds of the coal prices by volume were opened to the market. The effect of this price liberalization brought the government price up closer to international level and this in fact contributed somewhat to better financial positions of the SOE coal mines. However, due to the following reasons, the improvement of the financial situations of SOE coal mines was limited. First, the price of coal for electric power generation which is one of the industry’s largest and most important customer, is still sold at subsidized and controlled prices decided by the National Development and Reform Commission (NDRC). This circumscribed the benefits of price liberalization. Second, the high cost of transportation prevented many mines from taking advantage of increasing prices. Third, increases in coal prices were set below the increases in the prices of materials needed for mining by the government. It is striking that whereas many observers concluded that the financial performance of SOE coal mines failed to improve, the government was confident to show a clear and major benefit to SOE coal mines from the price deregulation.

52 Thomson, 2003, p. 236.
54 Thomson, 2003, p. 244.
In addition to low price control by the government, heavy social welfare obligations of SOE have long been a key constraint on the financial performance of SOE coal mines. Prioritizing social benefits above private or economic benefits for the peoples’ good is one of the features of SOE.\(^{56}\) The socialist welfare system which took over from the central planning economy is characterized by lifetime employment, free accommodation, free medical services and so forth. Thus the responsibility of SOE coal mines to the welfare of their workers increases the financial burden of these coal mines. However, what makes social welfare of SOE coal mines distinctive from other SOEs is that welfare obligations weigh more heavily on SOE coal mines. A 2001 survey finds that 14 SOE coal mines found to have a total expenditure on social welfare of 10.44 per cent of total revenue.\(^{57}\) Although there are several factors which explain the greater burdens of SOE coal mines, risks involving coal mining makes the financial burden heavier. In order to attract workers and compensate them for the risks involved in working in dangerous conditions, SOE coal mines have to offer high wages as well as the usual perks. Moreover, the health problems caused by working in coal mines increased expenditures on medical care.\(^{58}\) Thus heavy extra economic burdens heavily weighed on their cost structure and caused financial difficulties.

It is noteworthy that low planned price and a heavy social burden are just a few examples of the causes for the poor financial performance of SOE coal mines. Other than these, tax burdens, higher than TVCMs or foreign invested companies, have often been accused of contributing to poor financial performance. These factors which were derived from the legacy of central planning prevented SOE coal mines from competing with the

\(^{56}\) Wright, 2006, p. 182.  
\(^{57}\) Ibid.  
\(^{58}\) Wright, 2006, p. 183.
TVCMs, which are based on market oriented coal production fully taking advantage of their low costs.

**Performance of TVCMs**

The TVCMs make a striking contrast to the performance of SOE coal mines. The TVCMs experienced robust expansion since the early 1980s without the constraints which the SOE coal mines faced. In 1983 the State Council issued a report called “Eight Policies on Developing Small Coal mines”, which intended to lift all regulations on the development of TVCMs and to increase output from TVCMs.\(^{59}\) This includes: encouraging private firms or individuals to increase funds for coal operations, awarding autonomy on coal output, sale and transport, acting to resolve the shortage of production materials, offering special lower interest loans from local governments and so forth.\(^{60}\) This policy, known as “speeding up resource flows” (youshui kuailiu) with a meaning of “extracting coal in as much quantity and as fast as possible”\(^{61}\) exhorted people to invest their money in coal production. The visit of the top leaders, Zhao Ziyang and Hu Yaobang to coal fields in western China added symbolic meaning to the policy. In tandem with the enthusiastic government policy to develop the TVCMs, more favorable price condition for the TVCMs contributed to the success of them. As described above, the Chinese government implemented the price deregulation in the mid 1990s to reverse the deficit of SOE coal mines and heavy excess demand for coal led to high market prices, well above the planned price. This attracted low-cost TVCMs into the market and as a result they proliferated rapidly. In less than one year, the number of TVCMs doubled. Many analysts point out that TVCMs’ lower barrier to entry into the market contributed

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\(^{59}\) Rui, 2005, p. 128.
\(^{60}\) Ibid.
\(^{61}\) Ibid.
to the rapid growth of TVCMs. The distinctive features of TVCMs including little product differentiation, low requirement for capital and low legal barriers attracted many people to start TVCMs.\textsuperscript{62} Their lower production costs made TVCM coal more competitive compared to that of SOE coal mines. Since TVCMs did not invest in the safety and environment protection equipment that SOE coal mines were required to have by law, their lower price condition was advantageous.\textsuperscript{63} Although new laws and regulations were developed in the 1980s and 1990s to resolve the problems involving TVCMs, it was not until the late 1990s that these began to be applied to TVCMs with rigor. As a result, they gradually took over more market from SOE coal mines and the coal market became saturated, which in turn led to the government’s decision to close TVCMs.

\textit{The Closure Policy and What Lies Ahead}

It was not just an accident that a sudden drop in demand for coal from late 1997 to 1998 synchronized with the large-scale closure of TVCMs in 1998. Partly due to the economic stagnation triggered by the Asian Financial Crisis in 1997, the demand for energy dropped and this particularly affected the coal industry.\textsuperscript{64} In 1997, stockpiles reached levels in excess of 200 million tones. Moreover, in early 1998, the SOE coal mines needed to suspend their operation for two months in order to ease the oversupply problem.\textsuperscript{65} It is also true that the low quality of China’s coal and low international coal prices made it difficult to depend on coal exports to alleviate the problem. As soon as the government recognized that this was not a temporary phenomenon, they moved on to the

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{62} Andrews-Speed, 2002, p. 46.
\item \textsuperscript{63} Thomson, 2003, p. 236.
\item \textsuperscript{64} Andrews-Speed, 2004, p. 95.
\item \textsuperscript{65} Andrews-Speed, 2002, p. 48.
\end{itemize}
\end{footnotesize}
closure policy and what followed was the enforced consolidation of mining enterprises to larger state conglomerates. Zhu Ronji, Premier at that time, articulately described the goal of this policy:

"We must reform and adjust the order in the coal industry, close down illegal and irrationally located coal mines. We should make full use of the state key coal mines and let the modern mining equipment run to full capacity."

(Quoted in Su: 2004)

In 1998, the government announced a plan to close 25,800 small-scale coal mines that were operating illegally or “have been planned irrationally to salvage the loss-stricken sector” to reduce output by 250 million tones by the end of 1999. More specifically, the TVCMs which are subject to the closure policy were categorized into three groups: the illegal ones which did not obtain two necessary licences (Mining Licence and Production Licence), those producing low-quality coal with a poor safety record, and those extracting coal in the same coal areas as SOE coal mines operate and having a negative impact on them. Since there were about 72,000 small-scale coal mines operating in 1998 and nearly 35% of these mines became the target of closure in the first year, it can be speculated the closure policy was carried out on a large scale. By July 1999 the government proclaimed that the target number of mines had already been closed and in 2000 another 18,900 mines were to be closed. The level of annual coal production dropped from nearly 1,400 million tones in the mid-1990s to about 1,000 million tones in 2000 and 2001. In addition, according to the official source, the number of TVCMs in operation dropped drastically from 72,000 in 1998 to 27,000 in 2002. Thus the

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67 Rui, 2005, p. 65.
development of TVCMs has turned to decline after their phenomenal rise. Although the stockpiles have dropped and the financial performance of the coal industry has improved by 2001, the closure policy has still been in effect to this day as of September 2006. The Chinese government appears to be confident of the success of the closure policy given that the official figure of annual coal output and the number of small-scale coal mines show the drastic decline as the government expected. Now there are nearly 17,000 TVCMs remaining in operation throughout the country and the government seeks to reduce this number to less than 10,000 over the next few years. Many observers, however, are suspicious about these official numbers regarding the closure policy. They appear to agree that the gap between reality and official numbers is substantial and that a significant number of illegal TVCMs are still in operation. Moreover, available evidence suggests that while mines are often closed in the presence of the representatives, they are re-opened soon after their departure.

This is largely due to the fact that there is strong resistance from local officials, owners of TVCMs and workers in TVCMs. First, local officials who are in charge of the policy implementation are not willing to close their TVCMs. Because even if the TVCMs operate illegally and no matter how they cause a negative impact on environment, they are still the important source of local revenue and employment. Since the personal interests of local officials are strongly linked to the economic development of local communities, they can not easily lose these important sources for local governments by closing down TVCMs. Second, the closure of TVCMs leads to great losses for their

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owners. They were strongly encouraged to develop small-scale coal mines using mostly private funding while the country was facing severe coal shortage. Closing down these mines once the shortage ended does simply mean waste of the investment that the owners undertook. Moreover, compensation for the financial losses of the TVCMs was not fully taken into consideration. Third, TVCMs are the important source of income for workers who live in coal production areas where there are not many alternative employment opportunities. Although TVCMs are notorious for poor safety measures, workers are desperate to earn a living no matter how dangerous work they are engaged in. Shutting down TVCMs causes those people to worry about their subsistence means. The degree of success of the closure policy is, of course, likely to depend on a wide variety of factors including local economic structure and the degree of compensation. In the case of an area which has plenty of coal and alternative sources of employment, resistance from local officials, owners of TVCMs and workers in TVCMs may not be as strong as an area with a shortage of coal and alternative employment. Yet the Chinese government carried the TVCM closure programme in a top-down manner with little consideration of geographic heterogeneity or local socio-economic impacts.

Despite the great socio-economic benefits that the TVCMs yield and strong resistance against the closure from localities, why did the central government decide to move on to close the TVCMs in such haste?

The direct cause which triggered the closure policy is, of course, the problem of oversupply due to the rapid expansion of the TVCMs. An official of the State Council also admits that rampant production especially by small-scale coal mines caused the
serious oversupply. A glut of coal produced by TVCMs led to depressed coal prices and further financial problems of the SOE coal mines during the 1990s. This is why the government promptly moved to implement the large-scale closure of the TVCMs right after they recognized that stockpiles of coal had become too large to manage. The adjustment of oversupply was carried out by closing down only TVCMs, not SOE coal mines. It is true that the government sought to reduce losses of the SOE coal mines by 50 per cent in the following year by shutting down the TVCMs and in fact, the industry has made a profit of 1.5 billion yuan in 2001 and 2.3 billion yuan in 2002.\(^{73}\)

The justifications of the government for the closure policy, however, can be recognized as improving the safety and the environmental performance of the TVCMs. It is noticeable that many in the Chinese media ascribe the closure policy to the problems distinctive to the TVCMs including poor safety measure and negative environmental performance of the TVCMs. China’s coal industry is regarded as the most dangerous in the world and accidents including blasts, floods and collapses occur mostly in the TVCMs. Moreover, it is also undeniable that the government has a serious concern about environmental impact of the TVCMs. With its heavy use of coal, China has been accused of being a major contributor to global warming and other pollution problems. Since most of the TVCMs do not have advanced equipment which prevents negative environmental impacts, it is certain that they are causing adverse environmental consequences. Although there have been various measures implemented by the government to improve the safety and environmental performance of the TVCMs, available data shows that they have not been successful. Laws and regulations developed in the 1980s and 1990s were

\(^{72}\)Shapqin Zhao, 1998.
not rigorously applied to the TVCMs for the sake of energy provision.\textsuperscript{74} Moreover, the institutional impediment, especially conflicting interest between central government and local government rendered a series of regulations at least partially ineffective. Thus, instead of reviewing or strengthening their regulatory framework to control these detrimental consequences, they moved forward to shut down the TVCMs and thus solve these problems.

Yet, many observers seem to agree that poor safety measures and detrimental environmental performance of the TVCMs are just a pretext for carrying out the closure policy.\textsuperscript{75} Since the socio-economic benefits that TVCMs bring are enormous and resistance from workers and managers of TVCMs is strong, the government had to legitimize the closure policy by emphasizing the downside of TVCMs. The problems involving TVCMs are not something new. A document issued by the State Council in the early 1990s shows that the government was aware of the negative impact of the TVCMs on the SOE coal mines, starting:

\begin{quote}
Compared with large and medium enterprises, their [small enterprises'] technology is backward, their consumption of materials and energy is huge, and their product quality is poor... They compete with large and medium [SOE] enterprises for materials, energy, capital, and markets, making large and medium enterprises unable to fully utilize their production and technical potentials. From a social point of view, this trend of downsizing and diversification will inevitably aggravate the inefficiency in industrial production.
\end{quote}

(State Council 1990, quoted in Rui 2005: 69)

\textsuperscript{74} Andrews-Speed, 2002, p. 46.
\textsuperscript{75} Rui 2005; Andrews-Speed, 2004; Su 2006.
If the government perceived the problems would bring detrimental consequences to China, they would have done something more rigorously in the earlier stages. Yet it was not until the long-standing coal shortage was over that the government started to wrestle with these problems. Moreover, despite the fact that the closure of any coal mine requires a certain period of planning with a view to minimizing the future environmental impact, the TVCM closure campaign was carried out without any coherent environmental planning. With these facts, it is evident that improving the safety and environmental performance of the sector may be the subordinate reasons for the closure policy, but not the main reasons.

Most observers find the cause of the closure policy in the context of competition with the SOE coal mines. In other words, the closure policy was carried out in order to protect SOE coal mines which lost significant market share from competition with the TVCMs. As seen in Figure 5, the SOE coal mines became the principal loss-makers among all industries by 1998 with a loss of 3.7 billion yuan, which makes a stark contrast to the textile industry, the second largest loss sector, with the loss of 1.9 billion yuan. Su explicitly points out that the decision to shut down the TVCMs was a “political solution” pressed by managers and workers in the SOE coal mines. He explains that they lobbied top decision makers to keep the government’s commitment to protection and this led to the large-scale closure of the TVCMs. Wright also depicts the closure policy in relation to the intensifying competition with the TVCMs. Pointing out that the SOE coal mines used a campaign to improve safety in the TVCMs as a “weapon of

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77 Rui, 2005, p. 70.
competition to suppress their rivals”, he argues that campaign agenda was intended to stop operations and reduce output from the TVCMs in order to improve the financial position of the SOE coal mines.\textsuperscript{79}

Pressure to overcome the financial difficulty of SOE coal mines mostly stems from SOE coal mines’ workers and managers whose means of livings greatly depend on the performance of SOE coal mines. During the Mao period, SOE coal workers enjoyed privileges and the wage level of the workers in the industry was the highest category in all the industrial sectors.\textsuperscript{80} However, as economic reforms proceed, wage levels for workers in the industry have decreased compared to other sectors and now they are considered to be the lowest in China’s industrial sector. Moreover, because of the chronic financial deficit, SOE coal mines have had difficulty meeting the basic wages of the mines. For example, in March 1994, 78 per cent of the SOE miners had not received all their wages and workers’ unrest posed a serious threat to national stability.\textsuperscript{81}

Yet simply putting the issue into the competition between the TVCMs and the SOE coal mines and concluding that the closure policy was to protect the SOE coal mines will not allow us to fully capture the issue. The next chapter argues alternatively that the closure policy is the result of coping with both internal and external pressure that the Chinese government and China’s coal industry face in the long run.

\textsuperscript{79} Wright, 2004, p. 641.
\textsuperscript{80} Rui, 2005, p. 44.
\textsuperscript{81} Thomson, 1996, p. 741.
5. Internal Pressure: Continuing Political Power through Major SOEs in the Energy Sector

Political Imperative to Stay in Power: the Chinese Communist Party (CCP)

A major internal pressure for structural reform of the coal industry in China comes from the political imperative of the CCP to stay in power through its control of large-scale SOEs. The Party exercises control over enterprises through the appointment and dismissal of SOE managers and this functions as an important channel of political influence over enterprises. For example, the Central Party Organization Department is given authority over appointments of the top managers of very large SOEs whereas the Provincial (or Municipality) Party Organization Department is given authority over most large and medium sized SOEs. Bureaucrats still make decisions through the party apparatus for many large-scale SOEs based on political concerns rather than economic benefits. The political survival of the CCP may hinge upon maintaining such control since ownership of large-scale SOEs provides the current regime with a strong base for

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82 Bechky Chiu and Mervyn K. Lewis, Reforming China's State-owned Enterprises and Banks, (Massachusetts: Edward Elgar Publishing, 2006), p. 120.
political legitimacy. Amid the decline of political commitment to the Communists in China along with the increasing market orientation of the country, the state’s capacity to extend power and influence through SOEs assumes still greater significance to the CCP. Improving the competitive position of SOE coal mines and saving them at the cost of the great socio-economic benefits of the TVCMs reflects the underlying position of the government towards the SOE coal mines. In short, the dominance of state ownership in the industry is still important for the government. In other words, the commitment to state ownership remains the priority of the central government. Yet many have argued that the government has relinquished its control over SOEs through the restructuring and encouraged the separation of the state from enterprises after the economic reforms. This indeed conflicts with the view that state ownership in the SOE coal mines is still important for the government. It is true that over the past two decades, many policies were implemented to make SOEs market-oriented including separating the state from enterprises and delegating economic decision making power in SOEs to the director and managerial level. In fact, the contribution of SOEs to China’s total industrial output has significantly declined. According to Steinfeld, SOEs accounted for over 75 per cent of the nation’s industrial output in 1978 and by 1995 this portion had dropped to below 35 per cent. Moreover, along with the economic reforms, massive privatization of small- and medium- scale of SOEs has been carried out. However, it would be too early to conclude that the importance of SOEs in China’s economy has declined. Many SOEs have transformed into the other categories including state joint ownership enterprises, joint state-collective ownership enterprises and listed and unlisted subsidiaries of state-

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owned holding companies. It is notable that the state-owned and state-holding enterprises
together accounted for 41 per cent of industry output in 2002. 84 Furthermore, more than
74 per cent of the urban working population still relies on the SOEs to provide them with
employment opportunities and social welfare. Especially in heavy industry, SOE output
share remains very high and has changed little over the last several decades. 85 In other
words, heavy industry still remains thoroughly dominated by SOEs despite a series of
reforms and no other ownership form has penetrated this industry. 86 This is particularly
true for the energy sector. With the significant importance of the energy sector to a
country and the perceived strategic nature of energy, the energy sector has long been
dominated by state ownership and control in China as it has been in most countries. This
state ownership in the energy sector has given the government control over many aspects
of life in China. 87

State Ownership and Political Legitimacy

State ownership was once the core of communist ideology in China and SOEs
were the embodiment of state ownership. Under state ownership, “all citizens become
employees and workers of the state” (Lenin, quoted from Chen 1995: 24) and along with
central planning, the government intended to control the economy in order to pursue a
better world during the Mao period. SOEs played an important role in cementing the
party control in that it inserted party cells into all work units, which led to the political
integration of society. The Communist Party legitimized their control by claiming that its

84 Barry Naughton, “Implications of the State Monopoly over Industry and Its Relaxation,” Modern China 18.1 (1992),
p. 55 .
85 Ibid.
87 Andrew-Speed, 2004, p. 165.
leadership is the only one which could guarantee state ownership. Thus the legitimacy of the Communist Party was strongly linked with state ownership. As China moves its economic system from central planning to a more open market oriented system after its economic reforms in the late 1970s, however, the concept of state ownership which legitimized the role of the Communist Party faced a great challenge. On the one hand, in order to pursue economic growth using market forces, the government had to reform the existing ownership system which might hurt the legitimacy of the Communist Party. As the market economy expanded in China and growth increased, the poor performance of state ownership became apparent. As many of the SOEs’ performance declined, the government exhausted its capacity to protect loss-making firms and to keep them functioning. On the other hand, in order to maintain the ideological legitimacy of the party, the government had to carefully carry out the reforms while preventing state ownership from being discredited. This Chinese model of reform was called “economic reform without political reform” or “market socialism” and indeed China’s top leaders themselves embraced this theoretical concept. Thus the central themes of economic reform and the open door policy have not been about forging a free market and opening up to all forms of global competition. Although it has been more than 20 years since the economic reforms started, the restructuring of the SOEs is still a very sensitive issue. In March 2003, the government established a new government body called the State-Owned Assets Supervision and Administration Commission (State Asset Commission, or SAC) in order to deal with financially troubled state enterprises. Although the SAC was

89 Chen, 1995, p. 25.
expected to help clarify government property rights and improve management, it had an aspect of powerful government intervenient bodies in the way that they make decisions following by political consideration.\textsuperscript{91} The state still holds the reins of especially large SOEs because they still provide the regime with a strong base for political legitimacy. As Putterman and Dong point out, government leaders view enterprises as “both holders of state assets and guarantors of worker welfare”.\textsuperscript{92} Thus the restructuring of the SOEs often involves political considerations. The Central Committee has stressed the importance of continued Party control of SOEs and the Party’s role in guiding SOEs into the future. The closure of TVCMs and retaining of large scale SOEs coal mines thus can be seen as the state not willing or being unable to depend on an orthodox free market model, which may ultimately discredit the Communist Party. Rather, the government favors industrial integration into large SOEs in order to enhance state control over the industry. This serves the nation’s strategic energy needs and in turn prevents the leadership of the Communist Party from being discredited. Although many observers overlook the political imperative which lies behind the closure policy, the retention of SOE coal mines echoes the legacy of the central planning.

\textbf{6. External pressure: Consolidation in the Coal Sector to Compete with Global Giants}

\textit{Globalization and Joining the WTO}

Along with the internal pressure, external pressure is explicitly linked with the government’s decision of large-scale closure of TVCMs. External pressure, in general, means globalization. With the acceleration of globalization, a common value system has penetrated through countries and China is no exception. Globalization has exerted

\textsuperscript{91} Yeh and Lewis, 2004, p. 451.
\textsuperscript{92} Putterman and Dong, 2000, p. 417.
increasing pressure on China in that it requires the country to accommodate market forces and global standards and rules. Since China implemented economic reforms and the open door policy in the late 1970s, the Chinese economy has been exposed to the world more and more. The aim of the reforms and open door policy was to integrate China into the world and pursue economic development taking full advantage of importing advanced technology and management skills. In 1999, China and the U.S. reached the agreement which would permit the former to join the WTO after 15 years of negotiation. With the entry into the World Trade Organization (WTO) and penetration of economic globalization, it is expected that the coal industry will also become more exposed to the global competition. Upon the entry into the WTO, China committed to change or adapt nine hundred Chinese laws. Tariffs on energy imports will be reduced and non-tariff barriers which have protected the domestic industry in China will be gradually removed. This liberalization of non-tariff regulations particularly is believed to result in more imports of coal and coal equipment, which poses a great challenge to the coal industry in China.\textsuperscript{93} As seen in table 3, coal imports into China increased from 2.66 Mt in 2001 to 11.2 Mt in 2002, which led to the reduction of the domestic benchmark price and thus had detrimental impacts on domestic coal producers.\textsuperscript{94} Moreover, China’s coastal areas where coal is mostly needed are a considerable distance from the main coal producing area in the centre-north and north east of the country and therefore coal from overseas including Indonesia and Australia is expected to increase since these imported coal have advantage in terms of transportation cost. Coal export licenses, which are currently given to four companies including the Shanxi Provincial Government Coal Import and Export

\textsuperscript{93} Rui, 2005, p. 111.
\textsuperscript{94} Ibid.
Corporation, Shenhua Trading Company, Minmetal and China National Coal Industry Import Export Corporation, will be expanded. In addition to these measures upon the entry of WTO, China is also required to open its domestic markets for certain energy businesses including gasoline stations. Now SOE coal mines, which were competing with TVCMs within the country, will have to incorporate a global intensifying competition into their business scope. Yet the Chinese coal industry is not ready for coming global competition in terms of equipment, management skills, and transportation system involving coal production. Four decades of implementation of the central planning system before economic reforms in the late 1970s placed China's coal industry at a disadvantaged position. Globalization is nothing but challenges for the current diseconomies of scale in China's coal industry. A document issued by the State Planning Commission (SPC) explicitly addresses this concern:

"After entering the WTO... we must face the fact that in capital and technology intensive industrial sectors, not only do we have a weak base and low starting point, but more importantly, our competitive advantage of labour intensive industry will cease. Although we already invested huge capital in a list of essential industries, to be honest, we are not sure whether they can grow up and can compete with global giants. If global giants control our market, most of our firms will be heavily disadvantaged, and our economic growth will likely be stopped by market constraints. Therefore, speeding the development of big business is vital for our survival, and also a strategy task which ensures the security of national industry."

(SPC 1996: 6-7 quoted from Rui 2005: 102)

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It is true that globalization and integration with the world has helped China’s economic development. Yet as seen in the SPC’s statement above, the government has concerns that globalization will put China in a very disadvantageous position and this trend is expected to be salient in the coal industry. While China’s entire machine industry is far behind developed countries, its coal industry is said to lag more than 20 years behind.\textsuperscript{96} China’s non-mechanized coal production still accounts for more than 60 per cent of the total whereas the coal production in developed countries is almost mechanized.\textsuperscript{97} Due to its diseconomies of scale and backwardness in equipment and management skills, it is difficult for China’s coal industry to compete with global giants unless they pursue industrial restructuring and overcome these weaknesses. If they can not achieve restructuring to build their own large efficient mining business, the outcome will be that China’s coal mines are simply merged, acquired or closed. Thus, the closure policy, which aims to close down the TVCMs and replace them with more modern, large-scale SOE coal mines, can be construed as a response to this growing external pressure to compete on the global level playing field.

\textsuperscript{96} Rui, 2005, p. 47.
\textsuperscript{97} Ibid.
### Table 3. Coal exports and imports 1990-2003

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Export (mt)</th>
<th>Total Import (mt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>17.29</td>
<td>2.00</td>
</tr>
<tr>
<td>1991</td>
<td>20.00</td>
<td>1.37</td>
</tr>
<tr>
<td>1992</td>
<td>19.70</td>
<td>1.23</td>
</tr>
<tr>
<td>1993</td>
<td>19.81</td>
<td>1.43</td>
</tr>
<tr>
<td>1994</td>
<td>24.30</td>
<td>1.21</td>
</tr>
<tr>
<td>1995</td>
<td>28.62</td>
<td>1.61</td>
</tr>
<tr>
<td>1996</td>
<td>29.00</td>
<td>3.20</td>
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<tr>
<td>1997</td>
<td>30.72</td>
<td>2.00</td>
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<td>32.29</td>
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<td>2.66</td>
</tr>
<tr>
<td>2002</td>
<td>83.90</td>
<td>11.20</td>
</tr>
<tr>
<td>2003</td>
<td>94.02</td>
<td>11.10</td>
</tr>
</tbody>
</table>


*Foreign Involvement in the Coal Industry*

With the lowering barriers to entry into China's coal industry and further integration with the world due to globalization, more and more foreign investors are showing a keen interest in China's coal industry. China's coal industry opened its doors to the world in 1972, much earlier than nation's open-door policy implemented in 1978. At the beginning, foreign coal mining and/or machinery companies showed great interests in investing in China's coal industry and in fact, many representatives of these companies visited China and joined tours of mining operations. However, as they entered the market, they realized that the conditions for investment in China's coal industry are not ideal. Anecdotal evidence suggests that the Chinese coal market is hard to penetrate and that they often face administrative difficulties. One of the examples often pointed out is that foreign investors had difficulty determining where the ultimate

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99 Ibid.
decision-making authority lay among the multiplicity of government levels. Moreover, huge divergence between policy and actual practice confused many investors. Laws and regulations governing foreign investment on coal were not in place. Although the government issued the ‘Provision of the State Council of the PRC for the Encouragement of Foreign Investment’ in 1987 to clarify the rights and roles of the contracting parties, it was perceived as too late.

The bottlenecks on the railways are also often perceived as impediment for investment in China’s coal industry. In China, the main coal producing area is separated from the markets on average by distances of over 550 km and this causes transportation problems. These impediments reflect the fact that the total foreign investment in China’s coal industry was only $4.17 billion while the foreign direct investment alone in the oil industry by 1999 was more than $7.1 billion.

Yet it has been more than 30 years since China’s coal industry opened its doors and compared to the initial period, the situation has changed today. With 30 years experience exposed to world markets, China has surely been integrated into the world business and some of the impediments perceived in the initial period of opening have been overcome. Now China’s entry into the WTO increased the chance of foreign investment in the coal industry. In November 2002, foreign mining companies were granted the right to extract coal in China. Moreover, the surging prices of oil and gas on the world market in recent years stimulated the domestic demand for coal, a lot of foreign investors therefore see this as business opportunity. China is an immense country with abundant coal and the market is too huge to ignore. As early as 2000, the Asian Coal Inc., a US-based business, decided to cooperate with a Shanxi coal producing company to
build China’s first coal cooperative business with foreign investors. In 2004, Brazilian coal giant CVRD Group reached an agreement with Yongmei Group in central China’s Henan province and Shanghai Bao Steel Group to build a joint-stock coal company. As these examples show, the global mining giants are actively engaged in establishing joint ventures in order to save time and cost, and to accumulate local market knowledge. Entry of major global mining giants into China thus casts significant challenges to China’s small and weak or large and weak coal mines.

The Chinese central government, however diverges into two different opinions with respect to foreign investment. Some suggest that foreign investment can bring capital, much-needed technology and useful management skills. Other see foreign investment as nothing but western practices which are bourgeois and corrupting and they are concerned that China’s coal sector will be dominated by foreign capital.

Building Big Business in the Coal Industry

In order to compete with global giants on the same level playing field, China’s industrial policy has focused on building globally powerful companies. This is reflected in the policy of zhuada fangxiao (‘grasp the large and let go of the small’) issued at the Fifteenth Congress of the Chinese Communist Party (CCP) in September 1997. The aim of this policy was to promote a number of large state-owned enterprise groups while encouraging the privatization of small-and medium-sized enterprises. Yet this trial was nothing new to the Chinese industrial policy. China officially selected 55 enterprise groups to build indigenous competitive groups and this number was gradually expanded

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100 "China moves to open up coal industry to foreign investors," People’s Daily, 29 Oct 2005.
101 Rui, 2005, p. 111.
102 Rui, 2005, p. 127.
to 520 by 1999. These groups are supported by the government and collectively known as the ‘national team’ which is expected to compete in the world market in the near future. Since the mid-1990s, the government has begun to publish its own “Fortune 500” and most of the companies ranked were SOEs, operating with a high degree of state protection.\footnote{Nolan, 2004, p. 19.} This business model is often compared to a South Korean-Japanese model of late industrialization in that government supported the growth of giant companies to the extent that they can fully compete in the global market.\footnote{Nolan, 2004, p. 19; Yeh and Lewis, 2004, p. 451; Russell Smyth, et al., China’s Business Reforms: Institutional Challenges in a Globalized Economy, (New York: RoutledgeCuzon, 2005), p. 17.} In the course of Japan’s economic development after the war, especially from the 1950s to the 1970s, the Japanese government nurtured just two or three dominant companies which took a significant position in the domestic market. After a few decades, globally competitive companies were developed in Japan and by the late 1980s twenty of Japan’s companies were ranked in the largest one hundred corporations in the Fortune 500 list.\footnote{Nolan, 2004, p. 19.} This big business model has especially significant importance to the coal industry since competitive advantage in the industry is considered primarily in terms of size and management skills.\footnote{Rui, 2005, p. 49.} First, the coal industry is highly capital-intensive and it requires long-term investments and huge infrastructure including a coal washing facility and long-distance transportation. A certain size of company in the industry enables them to acquire enough financial resources to cover the cost of these investments. What is becoming important in recent years is the measure for reducing pollution from coal supply and using coal in a less polluting manner; both require capital which small-scale mines do not possess. In addition, international outreach, purchasing mines and the
construction of low-cost coal mines all over the world are possible with a certain size of company. In most of the major coal producing countries, production is concentrated in a small number of companies. In the U.S, for example, the top five coal companies accounted for 51 per cent of total coal output in 2001. On the contrary, the top ten coal producers in China accounted for 21 per cent of the total national coal output in 2001. In China, small-scale coal mines account for nearly 35 per cent of the total national output and this greatly contributes to the severe degree of diseconomies of scale in the coal industry. It is also noteworthy that most of the global coal mines are not only dealing with coal mines but also diversified operations focused on mining products. Thus, with capital advantage, big companies are more successful in forcing down costs than small local companies. Second, various marketing channels and expertise are beneficial to run coal mine business. It is necessary to deal with complex land rights and environmental issues once coal mining companies open up for business. Therefore, a global company, which has benefits in terms of size and management skills is in a stronger position to run a coal mining business. In fact, the world coal market is currently controlled by a small number of powerful international mining companies: Rio Tinto, Anglo American, BHP/Billiton. They dealt with more than 60 per cent of the total internationally traded coal in 2001.

Thus in order to compete with global coal mine companies, the government is pressured to design industrial policy to develop its national coal industry and enhance their global competitiveness. Closing down TVCMs and consolidating into large SOE coal mines can, therefore be observed as a response to the external pressure to build big

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109 Rui, p. 107.
110 Ibid.
Chinese coal enterprises. Vice Premier Wu Bangguo addressed the importance of large enterprises stating:

"In our world today economic competition between nations is in fact between each nation’s large enterprises and enterprise groups. A nation’s economic might is concentrated and manifested in the economic power and international competitiveness of its large enterprises and groups. International economic confrontations in reality show that if a country has several large enterprises or groups it will be able to maintain a certain market share and hold an assured position in the world economic order… In the same way now and in the next century our nation’s position in the international economic order will be to a large extent determined by the position of our nation’s large enterprises and groups.”

(Wu Bangguo, Chinese State Council, quoted from Nolan, 2004: 18)

Consequently, the government announced a plan to establish six to eight large coal producing groups, each with the capacity of more than 100 million tones per year.\(^{111}\) The industry made a profit of 1.51 billion yuan for the coal sector in 2001 after the long period of losses and this is ascribed to the profit of 1.5 billion yuan from 25 key coal corporations. In 2002, 32 out of 33 key coal enterprises gained a profit of 2.33 billion yuan in total.\(^{112}\) It is expected that the coal industry will be dominated by several large coal industrial conglomerates in the near future.

*The Shenhua Group: Case Study*

It would be worthwhile to shed light on the experience of one of the biggest coal producing groups in China, the Shenhua Group. The experience of the Shenhua Group


\(^{112}\) Rui, 2005, p. 122.
reflects how China’s coal industry has accommodated many challenges from globalization and the direction in which China’s coal industry is heading. The size of the enterprise made huge capital investment feasible to develop the coalfield which was not developed earlier and to carry an advanced project of coal liquefaction. At the same time, however it depicts the stark reality that the legacy of central planning hinders market-oriented coal production.

The Shenhua Group has been considered a successful model for consolidation in the coal industry in China. The company is the country’s largest coal producer with growing coal output. Over the past six years, it has witnessed six times increases in both coal output and sales volume. In 2005, the company announced that it aims to become the world’s largest coal producer in 2010 with coal output of 200 million tons.\textsuperscript{113} Fully owned by the state, Shenhua was established in 1985 and has experienced rapid development engaged in comprehensive development of coal, electricity, transportation and sales. In 1998, it experienced consolidation to take over the ‘Five Western District Mines’ in Inner Mongolia: Wuda, Haibowan, Baotou, Wanli and Zhunger’er, most of which were heavily loss-making mines. The company was granted property rights by the Chinese state to develop the Shenfu Dongsheng coalfield (on the borders of Shannxi and Inner Mongolia) which was not developed earlier mainly because of its remoteness, 800 km from the coastal area.\textsuperscript{114} The coalfield had a great advantage in terms of size of the deposits and the high quality of the coal. Yet in addition to the remoteness from the coast, huge capital investments including rail and port facilities delayed the state’s desire to develop the coalfield. The huge size and high quality of the Shenfu Dongsheng coalfield

\textsuperscript{113} “Shenhua Group aims to become world’s largest coal dealer in 2010,” \textit{People’s Daily}, 14 Nov 2005.
\textsuperscript{114} Nolan, 2001, p. 76.
provided Shenhua with a great advantage in competing with global leaders. Coal extracted from the coalfield was low-ash and low-sulphur. This assumes significant importance during an era in which coal is increasingly being differentiated by the category and quality of the product. As a result, Shenhua's coal is in high demand especially for modern power stations, individual households, and industrial boilers in areas where pollution controls were tight.\textsuperscript{115}

The central government provided the Shenfu Dongsheng project with preferential loans of over $9.2 billion from 1985 to 2005 and in turn this made it the third largest investment project in China.\textsuperscript{116} These loans were, however technically 'hard' loans which had annual interest rate from a low of 8.01 per cent to a high of 15.3 per cent and the repayment period was 15 years.\textsuperscript{117} With a strong financial background, the company was able to invest in the development of the huge coalfield and obtain advanced imported equipment. More than 98 per cent of its equipment was imported and automated systems increased productivity. Shenhua's principal coalmine, Daliuta recorded the world's highest productivity in the world with 118 tons per employee per day in 2002. This was important to the central government which has emphasized the role of coal industry in the country's modernization and strived to change the 'antique, dirty, stupid' image of the SOE coal mines.\textsuperscript{118} In addition, the government expects Shenhua to play a leading role in the development of coal liquefaction. Coal liquefaction converts low-quality coal into oil removing much of the polluting sulphur in the process and it is one of the projects that the central government promotes. A growing global pressure of reducing pollution and

\textsuperscript{115} Nolan, 2001, p. 79.  
\textsuperscript{116} Rui, 2005, p. 115.  
\textsuperscript{117} Nolan, 2001, p. 79.  
\textsuperscript{118} Thomson, 2003, p. 213.
increasing imported oil dependency added great impetus to the development of coal liquefaction projects in China. Shenhua undertook a project to build a coal liquefaction plant in northern China’s Inner Mongolia Autonomous Region in 2004. It expects that the company will be more an oil-producing company than simply a coal-producing company.

The workforce level is also one of the aspects which make Shenhua a successful model. It was ensured that the workforce level at the company is comparable with those in the international giant companies. In spite of the fact that Shenhua is the largest coal producing company in China, it only employed around 22,000 people while 90 largest SOE coal mines had an average of over 39,000 employees each in the early 1990s. With a large coalfield and small numbers of employees, Shenhua’s output per work is far higher than in traditional SOE coal mines. The workforce is relatively young and flexible and the company’s financial ability to pay higher wages than other large-scale SOE coal mines enables them to attract workers who have high level skills. Yet Shenhua still thinks that the proportion of non-production workers is still too large compared to an internationally competitive coal company. Following a market orientation, it intends to control the number of employees.

Shenhua is one of the companies sanctioned to export coal by the government. In recent years, the company is increasing coal exports among China’s four coal exporters. The company’s coal exports increased rapidly from 2.12 Mt in 1999 to 20 Mt in 2002.

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120 Nolan, 2001, p.79.
121 Ibid.
122 Ibid.
Rui points out the low price of coal and marketing capabilities of the company are the keys for increasing one’s share of the coal export market.\(^\text{123}\)

Thus, this case study shows that pushing for consolidation and building large-scale operations in the coal industry contributed to build a powerful and effective coal company which can compete on the global level playing field. However, Shenhua’s case also proves that state ownership keeps it from fully instilling a market orientation to the company. The Shenhua Group Company is fully owned by the state. The State Planning Commission formally has stockholder rights. Of fourteen people in its board of directors, six are from related state institutions which have a stake in Shenhua.\(^\text{124}\) The chairman of the company, Ye Qing was appointed by the State Council in 1998 and he was formerly the deputy director of the State Planning Commission. In spite of the company’s attempt to reduce its manning levels and move toward a market oriented production, it is constrained by weaknesses which stem from state ownership. Social obligations, huge debts and frequent intervention from the government, all of which are the legacy of central planning and are unavoidable as long as state ownership remains.

Shenhua’s merger with the Five Western District Mines in Inner Mongolia was a product of negotiation between the central government and local government. Since these SOE coal mines were heavily loss-making, the Inner Mongolia government was hesitant to accept responsibility and the central government could not provide enough subsidies as the Inner Mongolia government had requested.\(^\text{125}\) Having them go bankrupt was not in the central government’s scope of option since these mines provided the opportunity to absorb a large number of workers. As a result, Shenhua ended up taking

\(^{123}\) Rui, 2005, p. 118. 
\(^{124}\) Norlan, 2001, p. 76. 
\(^{125}\) Ibid.
over these unprofitable mines and this merger drastically limited the company's global competitive capacity which the government had not expected. Thus, Shenhua's had to deal with non-viable mines to ensure employment for large numbers of workers. While a global giant company tends to merge with strong companies to increase its competitive position in the market, China's large SOEs have to undertake non-viable companies due to the political consideration.126

What emerges from Shenhua's experience is that although the government promotes building its own indigenous big business to compete as a global giant and the company strives to instill a market-oriented behavior, state ownership which stems from the central planning era hinders it in its competition with globally powerful companies. At the same time, it also indicates that the central government is unable or unwilling to relinquish its control over the industry. If the government simply wants to maximize the profits of SOEs and build globally powerful indigenous companies, it should have relinquished state ownership. However, the energy industry, especially the coal industry is too important for the government to give up its ownership.

126 Ibid.
7. Conclusion: China’s Coal Industry on Its Way to Reform?

China has experienced phenomenal economic growth since beginning economic reforms and the open door policy in the late 1970s. The Chinese economy is in ascendance now and there seems to be no end to its economic growth. Although there are many forces which drive China’s economic development including an abundant labour force and technological innovation, energy assumes particular importance to continuity of this economic growth. Energy needs are expected to increase due to the increasing population and escalating trend towards urbanization in China. The expansion of the economy has been accompanied by growth in China’s energy provision and production. Energy, however, is not only an economic issue in China. How to secure the supply of energy has been a critical matter for the Chinese government in order to not only continue economic development but also to legitimize the leadership of the Communist Party and in turn to pursue social stability.

Compared to relatively scarce oil and natural gas reserves, the huge coal reserves are one of China’s advantages. In fact, coal has been a driving force in China’s economic development in that it provides energy to 70 per cent of power stations in the country. Although China has focused on diversifying energy resources in recent years, including oil and natural gas, coal has been identified as the only feasible energy option in terms of its cost and abundance to fuel China’s economic growth. In addition to coal’s important role in Chinese society, growing demands on power plants, adverse environmental impacts and rising death tolls in successive coal mine accidents have made the Chinese coal industry a target for reform. Amongst other things, the structural reform of the coal
industrial, closing down TVCMs and replacing capacity with SOE coal mines is worthy of attention.

TVCMs played a pivotal role in the provision of coal in tandem with SOE coal mines in China since the beginning of the 1980s. Taking full advantage of the ascendance of TVEs, the Chinese government encouraged TVCMs to develop in order to overcome long-standing shortages of coal. The coal from TVCMs was the cheapest and surest way to increase the supply of energy. TVCMs not only contributed to overcoming coal shortages but also yielded great socio-economic benefits including absorbing rural surplus labour, combating rural poverty and forging rural economic growth. These issues remain priorities of the Chinese government to tackle amid the growing economic disparity between rural and urban areas. In spite of the socio-economic benefits that TVCMs bring, the central government decided to carry out large-scale closures of TVCMs in 1998 and replace TVCMs with more modern and large-scale coal mines. It is true that the poor safety measures of TVCMs causes high levels of accidents and a lack of equipment to reduce pollution has detrimental impacts on the environment. Both are central government reasons of the closure policy. Moreover, the rapid expansion of TVCMs created the surplus market, intensified competition, and depressed prices which led to further financial problems at the major state-owned coal mines. In this respect, it can be argued that the closure policy was intended to improve the SOE coal mines' position at the cost of TVCMs. However, these reasons are not enough to explain the forces behind the closure policy. In this paper, I argued that the closure policy is the result of deliberate calculation responding to both internal pressure and external pressure.
that the Chinese coal industry and the Chinese government face amid the increasing market orientation of the country.

The government was under pressure to keep large-scale SOE coal mines functioning to ensure employment opportunities and to maintain wage levels; both of which were considered important as bastions of social stability as a whole. Other pressure stems from the political imperatives. The political survival of the CCP may hinge upon maintaining control of large-scale SOEs amid the decline of political commitment to the Communists. In spite of many attempts to separate state ownership from state control, the SOEs still function as a Party apparatus to project its political influence and this provides the current regime with a strong base for political legitimacy. Through the control of large-scale SOE coal mines which serve the nation's strategic energy needs, the CCP can enhance its legitimacy.

External pressure to close down TVCMs and replace them with modern, large-scale SOEs comes from globalization. China has become far more open to the world since the late 1970s. Taking full advantage of its openness, it has acquired advanced technology and expanded its export performance. However, the coal industry as a whole is not ready for global competition. It is widely thought that diseconomies of scale make China's coal industry unable to compete with global mining giants. The experience of the Shenhua Group suggests that modern and large-scale SOEs can achieve more efficient exploitation of coal resources and make greater profits. However, at the same time the case sheds light on aspects of the long history of central planning. The burden of welfare obligations and political considerations which still remain in the SOEs hinder them in their competition with global mining giants.
There is of course a dilemma that the Chinese government faces when they carry out the closure policy. TVCMs still assume socio-economic importance and particularly to coal producing areas as seen in the previous section. Resistance against the closure policy from workers and managers of TVCMs is strong. Nevertheless the Chinese government still implemented the large-scale closure of TVCMs. What lies behind this is the deliberate attempt of the Chinese government to cope with both the internal and external pressures that they face. With the enforced consolidation of mining enterprises to larger state conglomerates followed by the closure of TVCMs, the Chinese government can enhance its control of the industry which serves the nation’s strategic energy needs. In turn this will expand the state’s power and influence. At the same time, the closure of TVCMs made SOE coal mines profitable, accelerated technical upgrading and expanded businesses in order to compete with the global coal giants on a level playing field. It is, however too early to conclusively state the result of this restructuring. The government is confident of the success of the closure policy but there are many cases reported wherein the implementation of the policy has not been successful. In response to new coal shortages since 2002, the closure policy has become more flexible and in fact coal output from TVCMs is increasing. Although further industrial restructuring is necessary in the coal sector in order to provide energy stably and effectively, the future of China’s coal industry depends on the commitment of the government to carrying out market reforms and its ability to implement such reforms. The one certainty from the closure policy is that government involvement remains strong especially in the energy sector and the pace of market orientation remains slow.
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